

## PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>LBP1000PC00</b>	<b>FOR FURTHER ACTION</b> see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. <b>PCT/ EP 03/ 07946</b>	International filing date (day/month/year) <b>21/07/2003</b>	(Earliest) Priority Date (day/month/year) <b>19/07/2002</b>
Applicant  <b>LONZA BIOLOGICS PLC.</b>		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 5 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

## 1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☐ **Certain claims were found unsearchable** (See Box I).

3. ☐ **Unity of invention is lacking** (see Box II).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☐ the text is approved as submitted by the applicant.

☒ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No.

☐ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

☒ None of the figures.

## Box III TEXT OF THE ABSTRACT (Continuation of item 5 of the first sheet)

Method of expressing recombinant protein in CHO cells, by using an expression vector comprising the murine IgG 2A gene locus.

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 03/07946

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 C12N15/85 C12N15/90

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 C12N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, BIOSIS, EMBASE, WPI Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	COCKETT M I ET AL: "HIGH LEVEL EXPRESSION OF TISSUE INHIBITOR OF METALLOPROTEINASES IN CHINESE HAMSTER OVARY CELLS USING GLUTAMINE SYNTHETASE GENE AMPLIFICATION" BIO/TECHNOLOGY, NATURE PUBLISHING CO. NEW YORK, US, vol. 8, no. 7, July 1990 (1990-07), pages 662-667, XP009012110 ISSN: 0733-222X cited in the application page 666; figure 1 --- -/--	7,8

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

## \* Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*Z\* document member of the same patent family

Date of the actual completion of the international search

14 November 2003

Date of mailing of the international search report

02/12/2003

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Trommsdorff, M

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/03/07946

-C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>PU H ET AL: "RAPID ESTABLISHMENT OF HIGH-PRODUCING CELL LINES USING DICISTRONIC VECTORS WITH GLUTAMINE SYNTHETASE AS THE SELECTION MARKER" MOLECULAR BIOTECHNOLOGY, TOTOWA, NJ, US, vol. 10, 1998, pages 17-25, XP002923576 ISSN: 1073-6085 page 18; figure 1</p> <p>-----</p>	7,8 <i>bio tech</i>
X	<p>BEBBINGTON C R ET AL: "HIGH-LEVEL EXPRESSION OF A RECOMBINANT ANTIBODY FROM MYELOMA CELLS USING A GLUTAMINE SYNTHETASE GENE AS AN AMPLIFIABLE SELECTABLE MARKER" BIO/TECHNOLOGY, NATURE PUBLISHING CO. NEW YORK, US, vol. 10, no. 2, 1992, pages 169-175, XP000906901 ISSN: 0733-222X cited in the application page 174; figures 3,4</p> <p>-----</p>	7 <i>bio tech</i>
X	<p>WO 95 17516 A (HOLLIS GREGORY FRANKLIN ; MARK GEORGE E (US); MERCK &amp; CO INC (US)) 29 June 1995 (1995-06-29) cited in the application figure 3</p> <p>-----</p>	7
X	<p>US 5 891 693 A (BEBBINGTON CHRISTOPHER ROBERT ET AL) 6 April 1999 (1999-04-06) column 5 -column 6</p> <p>-----</p>	7 <i>bio tech</i>
A	<p>COLLINS JOHN T ET AL: "Germline transcripts of the murine immunoglobulin gamma-2a gene: Structure and induction by IFN-gamma" INTERNATIONAL IMMUNOLOGY, vol. 5, no. 8, 1993, pages 885-891, XP009021040 ISSN: 0953-8178 the whole document</p> <p>-----</p>	

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/JP 03/07946

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
WO 9517516	A	29-06-1995	AT	244311 T		15-07-2003
			AU	691857 B2		28-05-1998
			AU	1278695 A		10-07-1995
			CA	2177959 A1		29-06-1995
			CZ	9601859 A3		16-10-1996
			DE	69432901 D1		07-08-2003
			DK	731845 T3		20-10-2003
			EP	0731845 A1		18-09-1996
			FI	962268 A		20-06-1996
			GB	2299336 A		02-10-1996
			HU	74844 A2		28-02-1997
			WO	9517516 A1		29-06-1995
			JP	9510865 T		04-11-1997
			US	2003124648 A1		03-07-2003
			US	2003082673 A1		01-05-2003
US 5891693	A	06-04-1999	US	5879936 A		09-03-1999